PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Andrea Barta et al.	Group Art Unit: Unknown
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PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants respectfully submit this Preliminary Amendment in the above-referenced case. Consideration of this case in view of the amendments made herein is respectfully requested.

AMENDMENT

In the Specification:

Please amend the specification as follows:

At page 1, line 2, please insert the following paragraph:

--This application is a continuation of PCT Application No. PCT/AT00/00100 filed 20 April 2000, which claims priority to Austrian Application No. A 727/99 filed 23 April 1999.--

Immediately following page 62, containing the Abstract, please insert the Sequence Listing numbered pages 1-9 submitted herewith as Appendix A.

In the Claims:

Please cancel claims 1-18, without prejudice or disclaimer.

Please add new claims 19-61 as follows:

--19. (New) A protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

20. (New) A protein as set forth in claim 19, comprising the sequence of amino acids 1 to 4, 7 to 19, 22 to 72, 74 to 85, 96 to 141, 149 to 153, 156 to 172, with amino acid 168 being variable, yet not being D or N, of the protein according to Fig. 1A.

21. (New) A protein as set forth in claim 19, comprising an amino acid sequence having at least 95% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A.

22. (New) A protein as set forth in claim 19, comprising an amino acid sequence having at least 98% identity with the sequence of amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A.

23. (New) A nucleic acid molecule comprising

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

24. (New) A biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein

corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

25. (New) A system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

26. (New) A system as set froth in claim 25, wherein said first and said second nucleic acids are controlled by promoters not naturally connected with these nucleic acids.

27. (New) A system as set forth in claim 25, wherein at least one of said promoters controlling said first and said second nucleic acids is an inducible promoter.

28. (New) A system as set forth in claim 25, wherein said first nucleic acid encoding for a protein having splicing factor activity in plants is controlled by a promoter causing an overexpression of said protein.

29. (New) A system as set forth in claim 25, wherein said first nucleic acid encoding for a protein having splicing factor activity in plants is controlled by a special promoter, said special promoter, under defined conditions, preventing expression of said protein having said splicing factor activity in plants and, under defined other conditions, allowing expression of said protein having said splicing factor activity in plants.

30. (New) A transgenic plant expressing a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

31. (New) A transgenic plant comprising a nucleic acid molecule, said nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

32. (New) A transgenic plant comprising a biologically functional vector, said vector including a nucleic acid molecule comprising

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A of the appendix under stringent conditions and encodes for a splice protein active in plants or is complementary thereto.

33. (New) A transgenic plant cell expressing a protein having splicing factor activity in plants, said protein said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

34. (New) A transgenic plant cell comprising a nucleic acid molecule, said nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

35. (New) A transgenic plant cell comprising a biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

36. (New) A transgenic plant comprising a system, said system including

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

37. (New) A transgenic plant cell comprising a system, said system including

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and
- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

38. (New) A method of changing the splicing properties of a plant cell, said method comprising using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

39. (New) A method of changing the splicing properties of a plant cell, said method comprising using a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

40. (New) A method of changing the splicing properties of a plant cell, said method comprising using a biologically functional vector, said vector comprising a nucleic acid molecule

including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

41. (New) A method of changing the splicing properties of a plant cell, said method comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or

- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

42. (New) A method of changing the splicing properties of a plant, said method comprising using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

43. (New) A method of changing the splicing properties of a plant, said method comprising using a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of

an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

44. (New) A method of changing the splicing properties of a plant, said method comprising using a biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

45. (New) A method of changing the splicing properties of a plant, said method comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from

a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

46. (New) A method of changing the development behavior of a plant, said method comprising using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

47. (New) A method of changing the development behavior of a plant, said method comprising using nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A of the appendix, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said

protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

48. (New) A method of changing the development behavior of a plant, said method comprising using a biologically functional vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

49. (New) A method of changing the development behavior of a plant, said method

comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

50. (New) A method as set forth in claim 46, wherein said change of said development behavior of said plant is a retardation of flower formation.

51. (New) A method as set forth in claim 47, wherein said change of said development behavior of said plant is a retardation of flower formation.

52. (New) A method as set forth in claim 48, wherein said change of said development behavior of said plant is a retardation of flower formation.

53. (New) A method as set forth in claim 49, wherein said change of said development behavior of said plant is a retardation of flower formation.

54. (New) A method as set forth in claim 50, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

55. (New) A method as set forth in claim 51, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

56. (New) A method as set forth in claim 52, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

57. (New) A method as set forth in claim 53, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

58. (New) A method as set forth in claim 50, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

59. (New) A method as set forth in claim 51, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

60. (New) A method as set forth in claim 52, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

61. (New) A method as set forth in claim 53, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.--

REMARKS

The specification has been amended to recite the priority data, to cancel claims 1-18 of the PCT application, and to add new claims 19-61. Support for the new claims is found in the specification and claims as originally filed. For the convenience of the Examiner, a clean set of the pending claims is attached hereto as Appendix B.

Respectfully submitted,

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APPENDIX B
Pending Claims

19. A protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

20. A protein as set forth in claim 19, comprising the sequence of amino acids 1 to 4, 7 to 19, 22 to 72, 74 to 85, 96 to 141, 149 to 153, 156 to 172, with amino acid 168 being variable, yet not being D or N, of the protein according to Fig. 1A.

21. A protein as set forth in claim 19, comprising an amino acid sequence having at least 95% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A.

22. A protein as set forth in claim 19, comprising an amino acid sequence having at least 98% identity with the sequence of amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A.

23. A nucleic acid molecule comprising

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

24. A biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

25. A system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

26. A system as set froth in claim 25, wherein said first and said second nucleic acids are controlled by promoters not naturally connected with these nucleic acids.

27. A system as set forth in claim 25, wherein at least one of said promoters controlling said first and said second nucleic acids is an inducible promoter.

28. A system as set forth in claim 25, wherein said first nucleic acid encoding for a protein having splicing factor activity in plants is controlled by a promoter causing an overexpression of

said protein.

29. A system as set forth in claim 25, wherein said first nucleic acid encoding for a protein having splicing factor activity in plants is controlled by a special promoter, said special promoter, under defined conditions, preventing expression of said protein having said splicing factor activity in plants and, under defined other conditions, allowing expression of said protein having said splicing factor activity in plants.

30. A transgenic plant expressing a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

31. A transgenic plant comprising a nucleic acid molecule, said nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an

atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

32. A transgenic plant comprising a biologically functional vector, said vector including a nucleic acid molecule comprising

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A of the appendix under stringent conditions and encodes for a splice protein active in plants or is complementary thereto.

33. A transgenic plant cell expressing a protein having splicing factor activity in plants, said protein said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein

corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

34. A transgenic plant cell comprising a nucleic acid molecule, said nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

35. A transgenic plant cell comprising a biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to

222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

36. A transgenic plant comprising a system, said system including

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and
- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

37. A transgenic plant cell comprising a system, said system including

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein

comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

38. A method of changing the splicing properties of a plant cell, said method comprising using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

39. A method of changing the splicing properties of a plant cell, said method comprising

using a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

40. A method of changing the splicing properties of a plant cell, said method comprising using a biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under

stringent conditions and encodes a splice protein active in plants or is complementary thereto.

41. A method of changing the splicing properties of a plant cell, said method comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and
- a second nucleic acid, said second nucleic acid encoding
  - the atSRp34/SR protein from Arabidopsis thaliana or
  - the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
  - a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

42. A method of changing the splicing properties of a plant, said method comprising using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant

other than Arabidopsis thaliana, and

- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

43. A method of changing the splicing properties of a plant, said method comprising using a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

44. A method of changing the splicing properties of a plant, said method comprising using a biologically functional vector, said vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to

222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or

- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

45. A method of changing the splicing properties of a plant, said method comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and

- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or
- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

46. A method of changing the development behavior of a plant, said method comprising

using a protein having splicing factor activity in plants, said protein

- comprising the amino acid sequence of the protein according to Fig. 1A, or
- comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or
- corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and
- comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein.

47. A method of changing the development behavior of a plant, said method comprising using nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A of the appendix, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

48. A method of changing the development behavior of a plant, said method comprising

using a biologically functional vector comprising a nucleic acid molecule including

- a nucleic acid sequence as set forth in Fig. 1A, or
- a nucleic acid sequence encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein, or
- a nucleic acid sequence which binds to the nucleic acid molecule according to Fig. 1A under stringent conditions and encodes a splice protein active in plants or is complementary thereto.

49. A method of changing the development behavior of a plant, said method comprising using a system comprising

- a first nucleic acid encoding a protein having splicing factor activity in plants, said protein comprising the amino acid sequence of the protein according to Fig. 1A, or comprising more than 90% identity with the sequence of the amino acids 1 to 85 and 96 to 222 of the protein according to Fig. 1A, or corresponding to or being derived from the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, and comprising an atSRp30 activity, especially leading, when overexpressed, to a truncated mRNA-isoform of an atSRp34/SR1 protein and
- a second nucleic acid, said second nucleic acid encoding

- the atSRp34/SR protein from Arabidopsis thaliana or
- the protein corresponding to Fig. 1A from a plant other than Arabidopsis thaliana, or

- a protein derived from these proteins,

at least one of said first and said second nucleic acids being controlled by a promoter not naturally connected with these nucleic acids.

50. A method as set forth in claim 46, wherein said change of said development behavior of said plant is a retardation of flower formation.

51. A method as set forth in claim 47, wherein said change of said development behavior of said plant is a retardation of flower formation.

52. A method as set forth in claim 48, wherein said change of said development behavior of said plant is a retardation of flower formation.

53. A method as set forth in claim 49, wherein said change of said development behavior of said plant is a retardation of flower formation.

54. A method as set forth in claim 50, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

55. A method as set forth in claim 51, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

56. A method as set forth in claim 52, wherein said flower formation is retarded by at least

15% relative to a wild-type of said plant.

57. A method as set forth in claim 53, wherein said flower formation is retarded by at least 15% relative to a wild-type of said plant.

58. A method as set forth in claim 50, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

59. A method as set forth in claim 51, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

60. A method as set forth in claim 52, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.

61. A method as set forth in claim 53, wherein said flower formation is retarded by at least 25% relative to a wild-type of said plant.